



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

road's existence. The policy of the various owners of the road must be detailed, and the effect of each policy upon the finances of the road must be pointed out. Really important phases of the Union Pacific history Mr. Davis has slighted; questions of finances he has practically ignored. The perspective is distorted.

HENRY K. WHITE.

Eighth Annual Report of the Board of Gas and Electric Light Commissioners of Massachusetts, 1892, 8vo. pp. 288; and *Report of a Committee to Investigate Charges against Certain Gas Companies under an Order adopted by the House of Representatives of Massachusetts, March 28, 1893, with the Evidence and Arguments of Counsel*. 8vo. pp. clix + 578.

THESE two *Reports* are valuable additions to the literature of the subject treated. Hitherto the Massachusetts Board has given to the world no information on the actual cost of manufacture of gas in the several cities of the state. The ostensible reason for not giving such information has been that the Board could not rely upon any returns made by the companies; but there seems to have been also a hesitancy about revealing too much of the early history of the Board, lest it array against itself too many powerful interests. In the report for 1892, however, appears the total cost, aside from interest and dividends, in each of the sixty-eight gas companies of the State. Even now no such itemized statement of costs is given to the public as should be given. The defense made by the Board for refusing to print this information, or even to reveal it upon inquiry at the office to such litigants as cities suing for reductions in price of gas, is that the Board is not yet sure that the returns sent in by the companies regarding items of expense properly classify such items. No attempt seems as yet to have been made by the commissioners to determine whether or not the returns regarding the capitalization of the companies are correct, although the present law provides that no new stock or bonds be issued except through sales in open market for actual value put into the plant. The commissioners declare that they have neither the time nor the engineering and clerical assistance necessary to do all the work contemplated in the creation of the Board; they have neither time nor power to right all monopolistic abuses. Friends of the Board declare, moreover, that politics have in some

cases controlled appointments and prevented sufficient appropriations. The two *Reports* under consideration prove, however, that the Board has done much good work, especially in preventing undue increase of capitalization outside of Boston. In the eight years of its history the Board has reduced the price of gas by direct order in but four or five cases; it is argued with some plausibility, that the fear of the orders and the advice given in a quiet way by the commissioners has indirectly caused many reductions during the past few years. In the figures given in the above mentioned *Reports* on the cost of supplying gas, we find statements, on the one hand, of the amount of money spent in manufacture and distribution for repairs, taxes and improvements grouped together, and, on the other hand, the total amount of gas burned in the meter; no column gives the actual cost per thousand feet in each company. Making the proper division, for a few cities, of aggregate cost by number of feet of gas produced, it appears that the cost of delivery in the holder in the Bay State Gas Company of Boston was, in 1892, 36.4 cents. This apparently includes, however, higher charges than ought to be made for salaries and one or two other items (as brought out in the legislative investigation). The Bay State Gas Company distributes its gas through the Boston Gas Company, at a cost, in 1891, of about 24 cents per thousand feet, making thus a total cost of 60.4 cents per thousand feet. The total cost for manufacture and distribution in Worcester is returned as 70.3 cents; in Fall River as 64 cents. These companies use water gas. Perhaps the lowest cost of coal gas furnished is 72.3 cents, at Lowell. At Holyoke it is 77.9 cents.

It is interesting to note that the Bay State Gas Company of Boston uses only about one-fiftieth of a ton of anthracite coal to make a thousand feet of gas. A difference, therefore, of a dollar a ton in the price of coal would thus cause a difference in cost of producing gas of only two cents per thousand feet; this is due to improved processes of water gas making. Coal costs the company in Boston \$4.44 a ton, or 9.4 cents per thousand feet of gas made. In the same company it takes only 4.8 gallons of naphtha to make a thousand feet of gas. A difference, therefore, of a cent a gallon in naphtha would make a difference in cost of gas of 4.8 cents per thousand feet.

Naphtha in Boston in 1892 cost 3.37 cents a gallon, or 16 cents per thousand feet of gas made. The cost of material, therefore, for water gas was in Boston a little above 25.5 cents. In making water gas, of course, there are no residuals. It appears that in Fall River

and Haverhill, which also use water gas plants, the yield of gas is about the same for each ton of coal and gallon of oil used as in the Bay State Company.

The average rate of dividends declared in the twenty-three electric light companies making returns under this head was 5.71 per cent., while in the fifty gas companies making similar returns the rate was but eight per cent. In face of these facts and of others indicating the greater profits made by the gas companies as compared with the electric light companies, and indicating further that the production of gas is a greater monopoly than the production of electricity—which is partially explained, perhaps, by the fact that it is harder to tear up streets for a rival gas company than to string new wires—the increase of city ownership of lighting plants in this country is almost entirely confined to plants for supplying electricity. There are nearly 200 cities owning their electric light plants, and the number is increasing every month, while but eleven cities own their gas works, and the number has hardly increased by two or three in the last five years. The reason for the preference for municipal ownership of electric light plants arises doubtless from the fact that that form of lighting is the form used chiefly upon streets, and therefore the form which appeals to many as being more in harmony with public functions; but the agitation for cheaper gas and for city ownership is growing so rapidly that many private gas companies desire to have every state adopt the commission idea as it prevails in Massachusetts. This very desire, however, of the gas companies is doubtless one reason for the growing suspicion of the commission idea; it is certainly true that the commissioners did not appear to be popular in Massachusetts during their investigation of the Boston Gas Company last spring. The friends of the Board admit that the commissioners have been dilatory in reaching decisions upon cases referred to them, and have neglected to urge such changes in the law as would strengthen the powers of the Board.

A difficulty inherent in the commission idea was brought out in July 1892; the loss of the very able secretary of the Board was brought about by one of the Boston gas companies, which had also had an ex-commissioner for counsel in certain cases. The Board was unable to obtain the \$500 increase of salary from its actual statutory amount of \$2,000, although this slight increase was all that was needed to retain the secretary. Such crippling of commissions by

companies interested is a serious possible feature of the commission regime.

The evident progress that the Massachusetts Board of Commissioners has made in the direction of unifying the accounts of the companies, in securing valuable information—even where only a small portion of that information is revealed to the public—and the benefits which the Board has secured in conjunction with the law in preventing—except in Boston, where the legal conditions are exceptional—the outrageous systems of stock-watering that prevail in every other state in the Union, justify the existence of the Board.

Its work is valuable, even though, as the writer believes, it is not the final word on the subject. Space forbids more than a reference to the investigation by the Massachusetts Legislature of the Bay State Gas Company. That investigation furnishes interesting insight into the stock-watering and evasions, though not perhaps actual violation of law, to be found in many monopolistic enterprises.

The result of the investigation was an Act of the Legislature ordering some reduction in the watered capital.

EDWARD W. BEMIS.

A Study of Small Holdings. By WILLIAM E. BEAR. London: Cassell & Co., 1893. 8vo. pp. 98.

THIS “study” is mainly based on personal inspection of small holdings in England and the Channel Islands during 1892 and 1893, the author having been engaged in that work “in behalf of the Royal Commission of Labour.” Besides small farms in the proper sense, some space is given to fruit farms and market gardens, as well as to the truck farms and the cultivation under glass carried on in the Channel Islands. Very interesting is the account of the small holdings of the Isle of Axholme, which affords the most extensive and apparently the most successful existing survival of the open-field system. One surprising feature about the holdings under this system, in this and some other localities, is the frequency of sales. The land apparently changes hands with great ease, and does not ordinarily remain in the same family through many generations. The holdings vary “in size generally from one-eighth of an acre up to fifteen acres for the most part.” “In spite of encumbrances, most of the small holders live very well, and they are very independent. Small holdings are generally